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ARCHEOLOGICAL SURVEY OF LOTS 3 AND 6 IN TURTLE CREEK VILLAGE, ROUND ROCK, WILLIAMSON COUNTY, TEXAS

by

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submitted to

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ABSTRACT

On December 3, 2014, an archeologist with Prewitt and Associates, Inc., conducted an intensive archeological survey of two parcels totaling 13.5 acres in Round Rock in southern Williamson County, Texas. The survey was completed prior to proposed residential development on Lots 3 and 6 in Turtle Creek Village, just west of A. W. Grimes Boulevard.

The survey found that the project area has been extensively disturbed by cultivation, erosion, earthmoving, and the channelization of Dry Branch Creek, which bisects the project area. Fourteen shovel tests excavated in the project area encountered no archeological materials; many of them identified areas of graded fill, and one contained modern trash. A few lithic flakes were observed on the surface, but they were on or near imported fill and likely of nonlocal origin; these flakes were not designated an archeological site.

The project area has been substantially disturbed and has no potential for archeological sites that are eligible for listing in the National Register of Historic Places. Therefore, it is recommended that the proposed project be allowed to proceed without additional archeological investigations.

CURATION

This survey was conducted under a no artifact collection policy. Identified artifacts were noted, briefly described, and returned to the point of recovery. Project records and photographs are on file at Prewitt and Associates, Inc.

INTRODUCTION

On December 3, 2014, an archeologist with Prewitt and Associates, Inc., conducted an intensive archeological survey of two parcels along A. W. Grimes Boulevard in the city of Round Rock in southern Williamson County, Texas (see figure). The survey was completed in advance of residential construction on Lots 3 and 6 of Turtle Creek Village by Continental Homes of Texas, LP, on property owned by D. R. Horton. This work was performed to identify undocumented archeological resources in compliance with Section 106 and 36 CFR part 800 of the National Historic Preservation Act. The 13.5-acre horizontal Area of Potential Effects (APE) consists of a 9.6-acre parcel (Lot 3) and a 3.9-acre parcel (Lot 6) separated by a channelized segment of Dry Branch Creek. Based on the characteristics of area soils, the vertical APE is about 3 ft or less.

ENVIRONMENTAL SETTING

The project area is on upland terrain near the leading edge of the Balcones fault zone, which marks the physiographic transition between the rolling grasslands of the Blackland Prairie to the east and the rugged, dissected landscape of limestone hills and canyons of the Edwards Plateau to the west (Bureau of Economic Geology 1997; Griffith et al. 2004; McMahan et al. 1984; Werchan and Coker 1983). The APE is along an interface between Cretaceous-age clays, marls, shales and limestones of the Eagle Ford Group and undivided segments of Del Rio Clay ("Grayson Marl") and the Georgetown Formation. The north half of the APE may be on Pleistocene fluviatile terrace deposits (Bureau of Economic Geology 1981; Sellards et al. 1966).

Mapped soils along Dry Branch Creek include frequently flooded Tinn clay, with Sunev silty clay loam with 0–1 percent slopes and Heiden extremely stony clay with 3–12 percent slopes north of the stream. Terrain south of the stream is mapped as Heiden clay with 1–5 percent slopes, with the more-elevated of the two units characterized as eroded (USDA-NRCS 2014a). Tinn series soils are very deep, moderately well-drained soils that form in calcareous clayey alluvium on nearly level floodplains of streams in the Blackland Prairie (USDA-NRCS 2014b). Sunev series soils are very deep, well-drained soils that form in calcareous loamy alluvium on nearly level to moderately steep stream terraces, valley footslopes, and ridges on dissected and undulating plateaus. Well-drained, deep to very deep Heiden series soils form in clayey residuum derived from sedimentary bedrock. These nearly level to moderately steep soils are found on footslopes, interfluve shoulders, and ridge sideslopes on dissected plains (USDA-NRCS 2014b). Heiden series soils have high shrink-swell potential, and surface layers in eroded units generally have been thinned by as much as 25–50 percent (Werchan and Coker 1983).

Topography in the area is dominated by nearly level to rolling uplands incised by tributaries draining northward into Brushy Creek. The south half of the project area slopes gently to intermittent Dry Branch Creek from a high point of ca. 725 ft. Historically, terrain along and north of the modified tributary was nearly level, with surface elevations at or slightly lower than 700 ft.

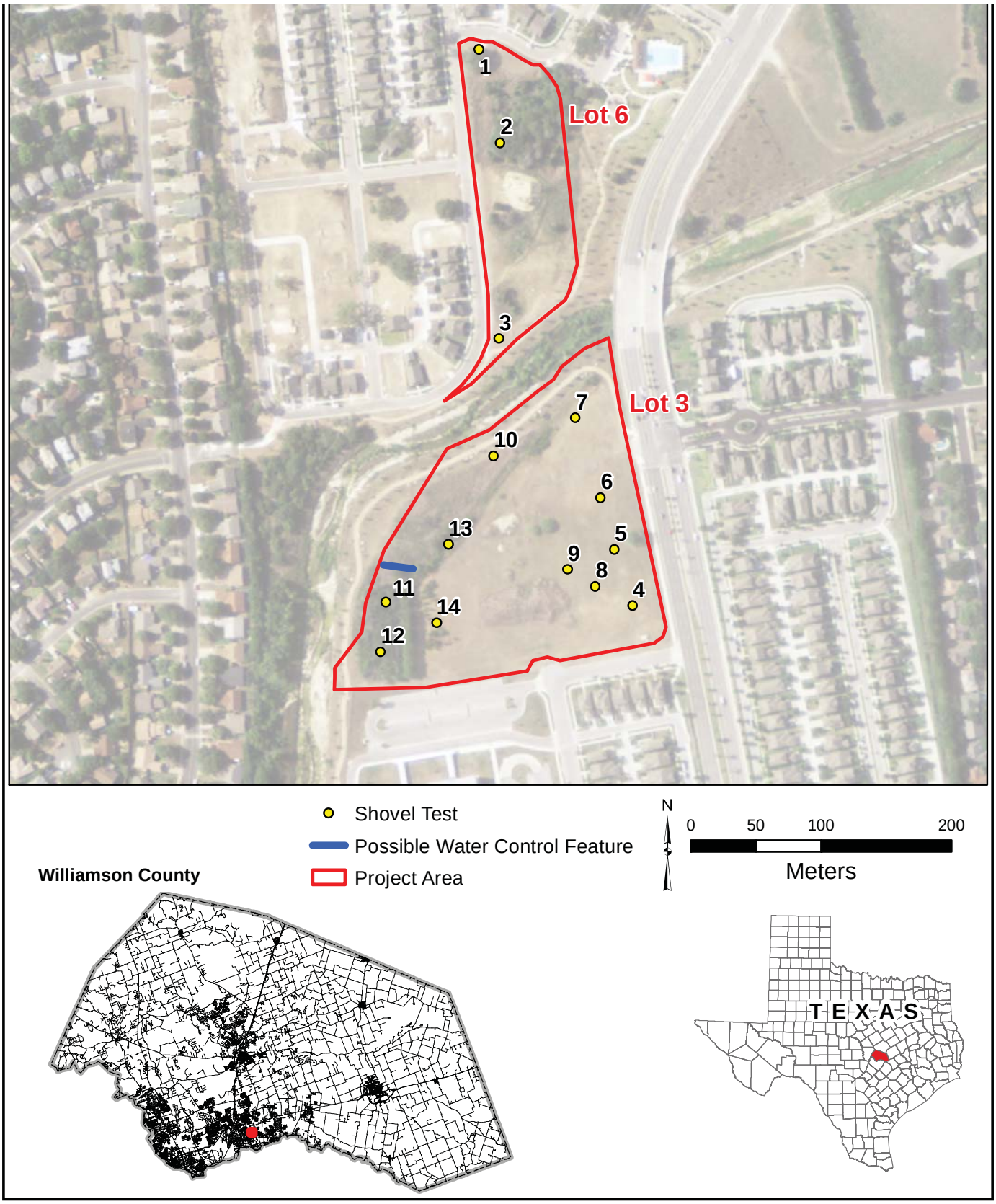

Figure. Project location map and modern aerial photograph showing the Area of Potential Effects, shovel test locations, and possible water-control feature.

The Williamson County climate is characterized by hot summers and typically cool winters punctuated by brief periods of cold arctic air. The climate of the eastern Edwards Plateau is classified as subtropical subhumid with hot summers and dry winters, whereas the climate of the Blackland Prairie physiographic unit is classified as modified humid subtropical with Gulf-influenced hot summers and continental-influenced mild winters (Goetze 1995; Natural Fibers Information Center 1987:10–12). Seasonal temperature extremes exceeding 100ºF and dipping below 32ºF occur in both regions but are more frequent on the Edwards Plateau (Werchan and Coker 1983:2–3). The mean annual precipitation for Williamson County is 34.5 inches (876 mm), with peaks in the early summer and fall months (Williamson County Weather 2014).

As with landscape and climate, the biota of Williamson County differs east to west with geographical overlap of some species. Flora and fauna of the Edwards Plateau and Blackland Prairie are defined as Balconian and Texan, respectively (Blair 1950). The project area is on the transition zone between the Balcones Canyonlands segment of the Edwards Plateau ecological region and the northern Blackland Prairie (Griffith et al. 2004). The project area is in a segment of the "silver bluestem–Texas wintergrass grassland" vegetative regime (Frye et al. 1984). Commonly associated plants include "little bluestem, sideoats grama, Texas grama, three-awn, hairy grama, tall dropseed, buffalograss, windmillgrass, hairy tridens, tumblegrass, western ragweed, broom snakeweed, Texas bluebonnet, live oak, post oak, and mesquite." Bur oak, Shumard oak, sugar hackberry, elm, ash, eastern cottonwood, and pecan are common along tributaries (McMahan et al. 1984). Most of the grassland in the vicinity of the project area has been converted to cropland and nonnative pasture or subjected to urban and residential development (Griffith et al. 2004).

RESULTS OF THE FILE SEARCH

Review of the Texas Historical Commission's Archeological Sites Atlas revealed that there are two prehistoric archeological sites (41WM468 and 41WM469), one historic site (41WM599), and three sites with both prehistoric and historic components (41WM464, 41WM470, and 41WM598) within 1 km of the project area. Late-twentieth-century infrastructure and residential development has extensively disturbed most of these archeological sites.

Sites 41WM464, 41WM468, 41WM469, and 41WM470 (all 0.5–1.0 km northeast of the APE) were recorded during an archeological survey conducted by the Texas Department of Water Resources for the City of Round Rock (Fox et al. 1981). Site 41WM464 included an extensive shallow scatter of chipped stone artifacts and burned rocks on a terrace overlooking the Brushy Creek and Lake Creek floodplains and the remains of two nineteenth-century houses and an associated trash scatter. Much of the prehistoric component was extensively disturbed by the time the site was recorded, but the historic component was considered more intact. Site 41WM468 consisted of a burned rock feature (hearth or burned rock pavement) and lithic debitage observed about 20 cm below the surface in the walls of a gravel pit north of Brushy Creek. Artifacts were observed across a 200x45 m area, but archeologists speculated that much of the site had been destroyed by gravel mining. Site 41WM469 was a 500x125-m lithic scatter and possible occupation site on a chert source locality overlooking the Lake Creek floodplain. The site included unmodified and heat-treated chert cobbles,

burned limestone, and lithic debitage. Site 41WM470 was a similarly sized scatter of lithic debitage and burned rocks overlooking Brushy Creek that included a Middle Archaic dart point fragment. The site's historic component included the structural remains and an associated dump of a mid-nineteenth- to early-twentieth-century farmstead. Site components were extensively disturbed by modern land use activities.

Sites 41WM598 and 41WM599 (both about 0.6 km southeast of the APE) were recorded prior to development northeast of the A. W. Grimes–Gattis School Road intersection (Briggs 1984). Site 41WM598 included the remnants of a nineteenth-century agricultural complex (standing barn, cistern, and associated historic artifact scatter) and a small scatter of lithic debitage. Site 41WM599 consisted of a rectangular arrangement of stone footers and an associated scatter of drinking vessels and bottle fragments dating to the first half of the twentieth century.

In 2002, Hicks and Company, Inc., surveyed 10 acres along the segment of Dry Branch Creek that passes between Lots 3 and 6 for the City of Round Rock and the U.S. Army Corps of Engineers. Archeologists identified a historic ceramic sherd and a bone fragment in the vicinity of an early-twentieth-century structure that once stood just east of A. W. Grimes Boulevard. The house was not assigned an archeological site number (Feit and Jarvis 2002). Horizon Environmental Services, Inc., did not identify any archeological resources during a survey conducted for Round Rock ISD on a 14-acre tract immediately south of the project area (Clark and Brownlow 2004). No new archeological sites were recorded within 1 km of the APE during other surveys conducted by Horizon Environmental Services, Inc., and Espey, Huston and Associates, Inc., along Brushy and Lake Creeks (Owens 2012; Voellinger et al. 1986).

RESULTS OF BACKGROUND REVIEW AND FIELD INVESTIGATION

A review of available modern and historic aerial photographs prior to the field investigation indicated that nearly all of Lot 3 and part of Lot 6 were under cultivation from at least the mid-1950s through the 1980s (NETR Online 2014). Google Earth satellite imagery indicates that channelization of Dry Creek Branch occurred from about 2005 to 2008. Mechanical surface disturbance marking the future alignments of Rolling Oak Drive and Heritage Springs Trail around Lot 6 and part of the parking area south of Lot 3 are visible by 2005. A significant portion of Lot 3 served as a staging area for construction equipment and fill material from about 2005 to 2010. Several smaller fill piles, including one that covers about 0.4 acres, are visible in the central and southern portions of Lot 6 from about 2012 to late 2013.

Fourteen shovel tests were excavated during the field investigation, exceeding the shovel testing intensity specified for areas of this size in the Texas Historical Commission's Archeological Survey Standards for Texas (see figure). Shovel tests were not systematically spaced along survey transects because of the extensive previous disturbance. Shovel tests were approximately 30 cm in diameter and were excavated in 20-cm-thick levels when sediments allowed. Removed sediment was screened through 1/4-inch-mesh hardware cloth or carefully sorted through with a trowel when too difficult to screen efficiently. A Shovel Test Record Form was used to record brief sediment descriptions and the presence

of modern trash and construction materials. Shovel Tests 1–3 were excavated in Lot 6, and the remaining tests were in Lot 3. Depths ranged from 13 to 40 cm, with an average of 29 cm. No trenching was done because the upland setting and thin sediments indicated that the project area has no potential for deeply buried sites.

Lot 3

The surface across most of Lot 3 drops gently toward Dry Branch Creek from a topographic high in the southeast part of the property. Historically, the curved north and west edges of the parcel included a band of alluvium deposited by Dry Branch Creek and a series of smaller meanders. A tree- and brush-lined barbed-wire fence roughly corresponds with the transition between the upland sideslope and floodplain. The part of the lot upslope from (south and east of) the fence has served as a staging area for fill material since about 2005. Google Earth satellite imagery indicates that dirt and rock fill piles covered as much as 2.6 acres of the parcel at one time or another, and some are still present. The largest is roughly 200 ft long by 130 ft wide and covers about 0.5 acres in the south-central part of Lot 3. Recent satellite imagery indicates that this feature sat largely untouched for several years, but the field investigation revealed it is again being tapped for fill material. The composition of this pile—dark brown clayey sediment mixed with limestone and chert cobbles—is very similar to that of the fill used to grade surfaces and build house pads in Lot 6. Mechanical equipment traffic has disturbed a large area surrounding the pile, and area two-tracks lead to a turnout at the south edge of the parcel on Thompson Trail.

Silt fencing once ringed most of the staging area, and gravel-paved haul roads accessed the area from the parcel's southeast corner, its north corner, and from the A. W. Grimes–Logan Drive intersection. Naturally translocated surface sediments now mostly cover downed silt fencing left at lower elevations to the north and west of the staging area. Vegetation push piles and piles of dumped concrete, stacked and dumped lumber, and steel railroad rails litter the lower half of the upland slope. An aboveground utility installation is near the southeast corner of Lot 3, and subsurface gas, electric, and telecommunications lines run east-west along the south edge of the property.

The scattered, irregular spacing of the eight shovel tests placed along and southeast of the barbed wire fence reflect the extent of disturbance observed in this part of Lot 3. Shovel Tests 4, 5, 8, and 9 were placed on the highest parts of the landform. Tests 4, 8, and 9 revealed 3- to 5-cm-thick surface layers of relatively loose clay loam over one or more underlying layers of well to very well-consolidated tacky clay. Indurated limestone was encountered at ca. 15 cm below the surface in Shovel Tests 8 and 9. Clay was present at the surface in Shovel Test 5. Shovel Test 6, placed farther downslope near a former haul road, exposed a 13-cm-thick surface layer of calcareous fill over well-consolidated tacky clay.

Shovel Test 7 was placed about 7 m south of an artificial scarp that abruptly drops ca. 1.5 m to the level of the walking path along the creek. Sediment exposed in this 40-cm-deep shovel test was a mix of differently colored clays, abundant calcareous gravels and cobbles, and occasional pieces of plastic and tin foil. Shovel Test 10 was excavated on what appeared to be a flat terrace surface about 70 m southwest of Shovel Test 7. Shovel Test 10 revealed a 5-cm-thick surface layer of loosely consolidated clay loam over a 7-cm-thick

layer of very well-consolidated dark brown to black clay with an uneven lower contact. The basal layer (exposed to a depth of 16 cm below the surface) consisted of a dull yellowish brown tacky clay interspersed between tightly packed calcareous clasts. A 1.3-m-deep tree well is 70 m southwest of Shovel Test 10, and a partially buried stone feature is in the tree line about 40 m southwest of the tree well. The east-west feature is a 2-m-wide by less than 1-m-high linear pile of large, irregular pieces of limestone that slopes downward from the terrace edge on the east and disappears below artificial fill a little more than 20 m to the west. A downed barbed-wire fence follows the top of the feature. Identification of a similar alignment of trees across a small surface drainage in about the same location on a 1964 aerial photograph suggests that the rock alignment is a historic water-control feature (NETR Online 2014).

Shovel Tests 11 and 12 were excavated in a low wooded area on a floodplain segment not impacted by recent stream modification. These tests exposed 7-cm-thick surface layers of damp, moderately consolidated silty clay loam over layers of damp, very well-consolidated silty clay and clay that extended to at least 40 cm below the surface in Shovel Test 11 and only 25 cm below the surface in Test 12. The basal layer in Shovel Test 11 contained rare fine to medium-sized gravels. Small to large pieces of limestone were relatively common from 7 to 25 cm below the surface in Shovel Test 12, and the basal layer in that test consisted of tacky clay interspersed between tightly packed pieces of limestone.

Shovel Tests 13 and 14 were along the upland sideslope–natural terrace interface. These tests revealed 7-cm-thick surface layers of loosely consolidated clay loam over basal layers of well-consolidated tacky clay with few small gravels or common flecks of calcareous material.

No artifacts were identified in the shovel tests excavated on Lot 3. A chert flake and flake fragment were observed on the surface along a dirt two-track road near the northeast corner of the large fill pile, but no other artifacts were found during visual inspection of surrounding vegetation-free surfaces. The flakes probably are derived from the nearby fill pile and thus were not recorded as an archeological site.

Lot 6

Lot 6 had been prepared for residential construction prior to the field survey on December 3, 2014. Most of the trees once present on the north half of the property had been cleared, the parcel was graded with imported fill, and building pads were ready for construction. Tree wells revealed that area surfaces were raised by as much as 1 m in some places. Subsurface utilities were in place, and a roadway with associated storm drains and parking areas extended north-south down the center of the property.

The extent of imported fill in Lot 6 restricted shovel testing to just a few discrete areas. Shovel Test 1, excavated in a natural surface remnant in the northwest corner of the parcel, revealed a 7-cm-thick surface layer of clay loam over well-consolidated tacky clay with few small gravels and numerous tree roots. Shovel Test 2 was placed in the floor of a tree well in the north half of the property. This test exposed a 10-cm-thick surface layer of loosely consolidated calcareous clay loam mixed with common fragments of limestone

and chert. Much of this upper layer may be derived from recent erosion of surrounding fill material. The next layer consisted of moderately consolidated, tacky, calcareous clay with common limestone gravels and abundant small fragments of crushed/indurated limestone, which ended at limestone bedrock about 30 cm below the surface. Shovel Test 3 was placed in a 10x20-m area of what appeared to be exposed native soil at the south end of the property. It revealed two 4-cm-thick layers of imported sediments—clay loam and calcareous fill—over tacky, well-consolidated stony clay. A few small chert flakes were observed on the surface in the vicinity of Shovel Test 3; but they are likely associated with imported sediments, and may have been produced by heavy equipment traffic. No artifacts were identified in the shovel tests excavated on Lot 6, and none were observed during visual inspection of soils surrounding recently planted trees on the east side of the property.

RECOMMENDATIONS

Review of available aerial photographs and Google Earth satellite imagery before the field investigation indicated that much of the project APE was under cultivation at least as early as the 1950s. Linear features visible in aerial photographs attest to historic agricultural modification of the Dry Branch Creek floodplain in and between Lots 3 and 6. Beginning in about 2005, most of the project APE was subjected to various levels of disturbance tied to area infrastructure and residential development. Original surfaces along the northern and western edges of Lot 3 have been modified by earthmoving and capped with stony fill. Elevated terrain southeast of the creek has been impacted by heavy equipment traffic and surface erosion. Recent earthmoving and construction activities in Lot 6 truncated area soils and capped most of the parcel with imported fill.

A few lithic flakes were observed on the surface, but all of them were found on or near imported fill dirt and likely are nonlocal in origin; hence, they were not recorded as an archeological site. A possible water-control feature identified on the floodplain margin in Lot 3 probably relates to a linear alignment visible on a 1964 aerial photograph (NETR Online 1964). As much as half of this feature may be buried below graded stony fill likely derived from the channelization of Dry Branch Creek. Because of the absence of associated historic archeological deposits, this feature remnant was not recorded as an archeological site.

The project area has been substantially disturbed and has no potential for archeological sites that are eligible for listing in the National Register of Historic Places. Therefore, it is recommended that the proposed project be allowed to proceed without additional archeological investigations.

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